

Serial No. 09/780,957
Atty. Doc. No. 01P7460US

REMARKS

Claims 4, 7, and 10 are pending in the application. In light of the following remarks, Applicants respectfully request favorable reconsideration and allowance of the pending claims.

Rejection of Claim 1 Under § 102

Claim 1 has been cancelled without prejudice.

Rejection of Claims 3-5, 7, 8, and 10 Under § 103

Claims 3-5, 7, 8, and 10 have been rejected under 35 U.S.C. § 103(a) based on U.S. Patent No. 6,362,550 ("Ragaly") and U.S. Patent No. 4,896,062 ("Pollard"). Claims 3, 5, and 8 have been cancelled without prejudice. For the following reasons, Applicants respectfully request favorable consideration of claims 4, 7, and 10.

Applicants respectfully submit that Applicants' invention, as recited in claims 4, 7, and 10, solves a problem that is not addressed or even identified in Ragaly and Pollard. As the Examiner has pointed out (and as illustrated in Applicants' Figure 2), high-current diodes are typically partially encased with a protective casing (see, e.g., items 35 and 36 of Applicants' Figure 2). The electrical connection surfaces of such diodes, however, are not encased. A weakness exists at the point where the protective coating ends and the electrical connection surface begins. If a diode fails and ruptures, the inner contents of the diode may blast out of the diode through this area of weakness. This can cause catastrophic failure of the exciter and of the power generator.

Applicants' claimed invention addresses the above problem and also overcomes the challenges caused by the tight spacing within an exciter with specially configured "containment members." Although Ragaly and Pollard refer generally to diodes with casings, neither teaches or suggests a separate containment member to deal with the weakness discussed above. In

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particular, with regard to claim 4, neither Ragaly nor Pollard teaches or suggests a "pair of containment members [that have] a substantially annular shape to thereby define an insulative disc, and wherein each of the insulative discs are pivotally connected to the diode wheel." With regard to claims 7 and 10, neither Ragaly nor Pollard teaches or suggests a "pair of insulative containment members positioned to extend from a metal-electric connection region when the diode is connected to a conducting member to the insulative casing of the diode; wherein each of the pair of containment members has a substantially annular shape to thereby define an insulative disc." In light of at least these significant differences between Applicants' claimed invention and the prior art of record, Applicants respectfully submit that claims 4, 7, and 10, are novel and unobvious. Accordingly, Applicants respectfully request favorable reconsideration of the rejection of claims 4, 7, and 10.

CONCLUSION

In light of the above remarks, Applicants respectfully submit that the application is now in condition for allowance. Should the Examiner have any questions concerning this paper or application, the Examiner is respectfully requested to contact Applicant's undersigned attorney to resolve such issue or question.


The commissioner is hereby authorized to charge any appropriate fees due in connection with this paper or credit any overpayments to Deposit Account No. 19-2179.

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Respectfully submitted,

MAR 4 2003

Dated: March 4, 2003 TECHNOLOGY CENTER 2800

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VERSION WITH MARKINGS TO SHOW CHANGES MADE

4. (Amended) A power generator system comprising:

a power generator; and

an exciter for excitation of said power generator, the exciter including a diode wheel, the diode wheel having a rotating support structure, a plurality of diodes mounted to the structure, and a plurality of a diode support and rupture containment devices each positioned adjacent a respective one of the plurality of diodes to support the diode and contain the diode within the confines thereof in the event the diode ruptures, each diode support and rupture containment device including a pair of spaced-apart insulative containment members with the respective diode positioned therebetween;

wherein the diode wheel includes a plurality of metal-electric connection regions each having one of the diodes connected thereto, wherein each of the plurality of diodes includes a casing formed of an insulating material, and wherein at least one of the pair of containment members is positioned adjacent the metal-electric connection region having the diode connected thereto and extends to the casing of the diode; and

[A power generation system as defined in Claim 3,] wherein each of the pair of containment members has a substantially annular shape to thereby define an insulative disc, and wherein each of the insulative discs are pivotally connected to the diode wheel for ease of access to the diode.

7. (Twice Amended) An exciter for a power generation system, the exciter comprising:
a rotating support structure;

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a diode mounted to the structure; and

a diode support and rupture containment device positioned to support the diode and contain the diode within the confines thereof in the event the diode ruptures, the diode support and rupture containment device including a pair of spaced-apart insulative containment members arranged to have a diode positioned therebetween, the diode including an insulative casing, each of the pair of insulative containment members positioned to extend from a metal-electric connection region when the diode is connected to a conducting member to the insulative casing of the diode;

[An exciter as defined in Claim 5,] wherein each of the pair of containment members has a substantially annular shape to thereby define an insulative disc.

10. (Twice Amended) A diode support and rupture containment device for a diode of a power generation system, the device comprising:

a pair of spaced-apart insulative containment members arranged to have a diode positioned therebetween, the diode including an insulative casing, each of the pair of insulative containment members positioned to extend from a metal-electric connection region when the diode is connected to a conducting member to the insulative casing of the diode;

[A diode support and rupture containment device as defined in Claim 8,] wherein each of the pair of containment members has a substantially annular shape to thereby define an insulative disc.